



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/591,728

06/11/2007

Brian Mandt

00758.1824USWO

1718

23552 7590 08/02/2010  
MERCHANT & GOULD PC  
P.O. BOX 2903  
MINNEAPOLIS, MN 55402-0903

EXAMINER

STELLING, LUCAS A

ART UNIT

PAPER NUMBER

1797

MAIL DATE

DELIVERY MODE

08/02/2010

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/591,728	<b>Applicant(s)</b> MANDT ET AL.	
	<b>Examiner</b> Lucas Stelling	<b>Art Unit</b> 1797	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 04 May 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,2 and 4-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2, and 4-11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                       | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>5-4-10</u> .  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 5-4-10 has been entered.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein

Art Unit: 1797

were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 1 and 2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rohrbach in view of U.S. Patent No. 4,075,098 to Paul et al. ("Paul").

6. As to claim 1, Rohrbach teaches a service cartridge for positioning in a filter housing; the service cartridge comprising:

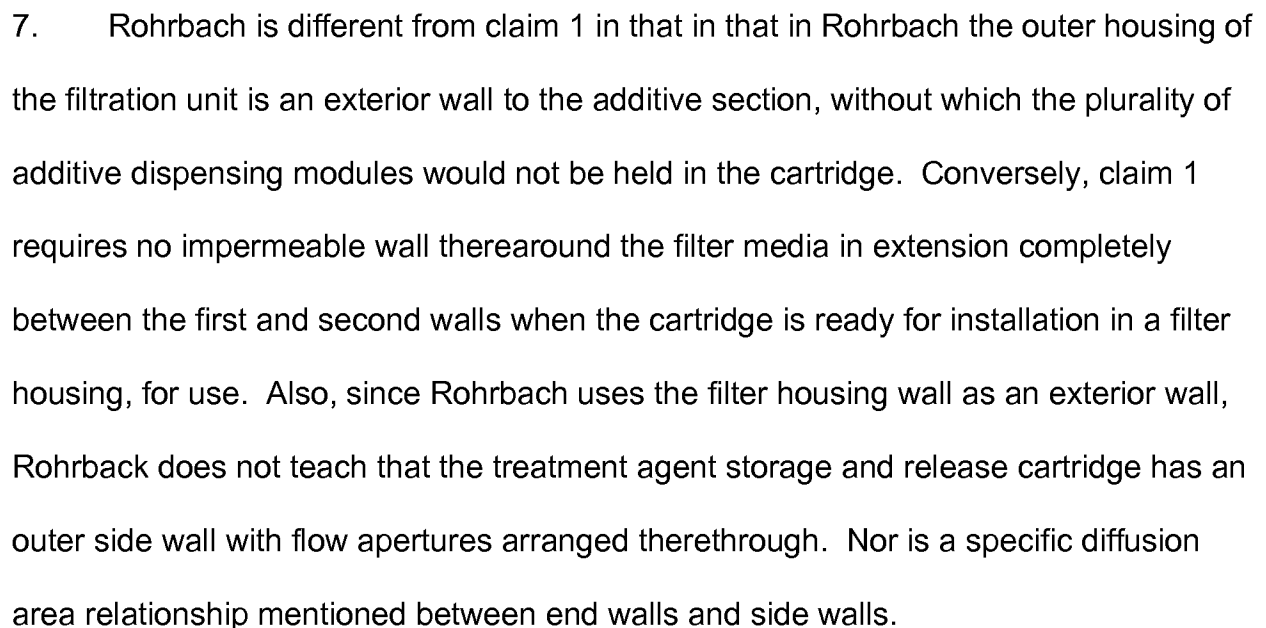
filter media **(315)** having a first and second ends **(A and B)** and positioned around a central opening area;

a first end cap **( part of the frame 317 constitutes an end cap of the filter)** secured to the first end of the filter media; and ,

a treatment agent storage and release cartridge **(the cartridge is defined by the upper plate 320, the lower plate 322, the sealing member 319, see also [0055], [0056], and [0057])** to the second end of the media;

the treatment agent storage and release cartridge having a ring configuration **(the filter is cylindrical)** defining an inside wall **(E)** defining a central flow conduit in liquid flow communication with the central open area defined by the filter media;

the inside wall having no diffusion apertures **(no diffusion apertures are show through the inside wall)** therethrough;



Art Unit: 1797

8. Paul teaches a ring shaped additive body located in a filter housing (**See Paul 84 in Fig. 1**). Paul teaches that the use of an additive body comprising high-molecular weight polymer additives allows for a slow dissolution and dispersion rate in the oil (**See Paul col. 8 lines 5-25**). Paul also provides a retaining plate for holding the additive body and for masking the fluid contact surface with a lip portion (**See Figs. 8-10, and see col. 12 lines 40-68**). The retaining plate in Paul contains a lip portion (**See in Figs. 8-10, again**), the examiner is interpreting the lip portion to be a sidewall. Paul teaches that apertures are provided in the lip portion, which are used to control the amount of fluid contact with the additive body (**See col. 12 line 60 -- col. 13 line 5**). Therefore, it would have been obvious to a person having ordinary skill in the art at the time of invention to replace the plural additive dispensing modules in Rohrbach with an additive ring type configuration as shown in Paul, which is held in place using a the end plate in Rohrbach and to provide a lip portion, or sidewall, with apertures; this arrangement provides for a slow dissolution and dispersion rate of additives within the oil, as well as for selecting the fluid contact rate with the additive in the cartridge. In doing so, the ring shaped additive body would be held in place and would not require the filter housing for containment.

9. As to a specific diffusion area ratio, Paul contemplates varying the size and number of the apertures in order to select a desired oil/additive contact rate (**See Paul col. 12 lines 60-- col. 13 line 5**). Therefore, the size and number of holes, and as such the diffusion area on the end with respect to the diffusion area on the side, are result effective variables, which would have been obvious for a person having ordinary skill in

Art Unit: 1797

the art to optimize. *Discovery of an optimum value of result effective variable in known process is ordinarily within the skill in the art and would have been obvious, consult In re Boesch and Slaney (205 USPQ 215 (CCPA 1980))*. Moreover, changes in size and proportion have been held obvious absent an unobvious change in operation of the device. See MPEP 21144.04(IV)(A).

10. Moreover, the removal of elements found in the prior art is considered obvious if their function is not desired. See MPEP 2144.04(II)(A). In this case, it would be obvious to initially omit the housings of Rohrbach and Paul while preparing a filter element/additive cartridge combination for insertion into a housing during assembly, so that the combination filter element/additive cartridge combination may be assembled openly without being constricted a housing.

11. As to claim 2, Rohrbach and Paul teach the device of claim 1, and Rohrbach shows a service cartridge where the cartridge inside wall seals to the housing in a radial configuration **(See C and D above)**, also in Rohrbach as modified by Paul, the apertures are placed on the upstream side of the housing seal **(See 322 in Fig. 5 in Rohrbach, and see Figs 8-10 in Paul, the fluid contacts the additive on the upstream side of the filter only)**.

12. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rohrbach and Paul and in further view of U.S. Patent No. 6,322,697 to Hacker et al. ("Hacker").

Art Unit: 1797

13. As to claim 4, Rohrbach and Paul teach the device of claim 1, and Paul teaches that the solid additive ring has an extending peripheral lip, in addition to the end plate and an inner wall, which forms a cup for holding the additive **(Paul See Figs 8-10, the cup is formed from the inner wall, top, and extending lip of the additive cap.**

**Epecially see 200 in Fig. 8, 200a in Fig 9, and 202 in Fig. 10, Paul contemplates varying the size of the extending lip as well as placing openings on it).** Paul teaches that varying the apertures on lip controls the dissolution rate of the additive **(See Paul col. 12 lines 45-65).** Therefore, it would have been obvious to a person having ordinary skill in the art at the time of invention to provide a cup with a lip when providing the additive body in Rohrbach in order to control the dissolution rate of the additive within the filter. Also, in the configuration of the additive in Paul the end cap of the filter forms a cover section for the additive **(See 54 in Figs 1 and 8).**

14. However, Rohrbach in view of Paul does not mention whether the filter is attached to the cover with adhesive. Hacker teaches an oil filter with end caps in which the filter element is sealed and secured with adhesive to the end caps **(See Hacker col. 3 lines 50-65).** A person having ordinary skill in the art would recognize that sealing and securing the filter in Rohrbach and Paul to the end cap will prevent movement of the filter within the housing and would also prevent oil from passing between the filter and the cover. Therefore, it would have been obvious to a person having ordinary skill in the art at the time of invention to secure the filter media to a cover/end-cap section with adhesive in the filter of Rohrbach and Paul in order to secure the filter element and to prevent oil from passing between the media and the end cap of the filter.



15. Claims 5-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rohrbach as modified by Paul and Hacker as applied to claim 4 above, and further in view of U.S. Patent No. 6,488,845 to Neufeld et al. ("Neufeld").

16. As to claim 5, Rohrbach as modified by Paul and Hacker teaches the filter cartridge of claim 4, but does not teach the use of a mounting prong arrangement. The use of mounting prongs are shown, for example, in Neufeld (**See Figs. 2 and 5, 54 is a finger for engagement with flared surface on the engagement plug 60**). Neufeld teaches that the mounting prongs facilitate securing the filter to the housing (**See Neufeld col. 4 lines 27-50**). Therefore, it would have been obvious to a person of ordinary skill in the art at the time of invention to provide a mounting prong arrangement projecting axially from the end cap in order to engage with a feature on the housing, thereby securing the filter element.

17. As to claim 6, Rohrbach as modified by Paul, Hacker, and Neufeld teach the filter cartridge of claim 5, and Rohrbach depicts using a pleated media (**See [0055]**).

18. As to claim 7, Rohrbach as modified by Paul, Hacker, and Neufeld teach the filter cartridge of claim 6, and Rohrbach teaches that support screens are optional (**Rohrbach [0055]**), and it would be obvious to omit a screen for support if the filter were self supporting. See MPEP 21144.04(II)(A), *omission of an element and its function is obvious if the function of the element is not desired/needed*. Therefore, it would have been obvious to a person of ordinary skill in the art to omit the cylindrical support screen.

Art Unit: 1797

19. As to claims 8-10, Rohrbach as modified by Paul, Hacker, and Neufeld teach the filter cartridge of claim 7, and the axial length ratio is a result effective variable which controls the amount of treatment agent which will be carried by the filter, and the amount of treatment agent which may be exposed to the oil, thereby affecting the life of the additive and/or also the rate of delivery. *Discovery of the optimum value of result effective variable in known process is ordinarily within the skill in the art and would have been obvious, consult In re Boesch and Slaney (205 USPQ 215 (CCPA 1980)).*

Furthermore changes in size and proportion have been held obvious absent an unobvious change in operation of the device. See MPEP 21144.04(IV)(A).

20. As to claim 11, Rohrbach as modified by Paul, Hacker, and Neufeld teaches the device of claim 10, and the first end cap covers the end of the filter and does not allow liquid to enter the media from the end side, nor does it allow liquid to bypass the filter and pass downstream. The first end cap therefore is closed (**See Rohrbach Fig. 5**).

### ***Response to Arguments***

21. Applicant's arguments filed 5-04-10 have been fully considered but they are not persuasive.

22. Applicant argues that the diffusion aperture arrangement is not shown in the prior art. In response, and as discussed above, Rohrbach teaches an end plate with apertures, and Paul provides a lip portion also having apertures which are used to control the contact rate of the fluid with the additive body. A person having ordinary skill in the art in view of Rohrbach and Paul would have found it obvious to provide an additive body in Rohrbach, and as well, to provide a lip portion containing apertures.

Art Unit: 1797

Since Paul recognizes that the size and number of apertures are designed to control the contact rate between the fluid and additive body, it would have been obvious to a person having ordinary skill in the art to optimize the size and number of the holes, as well as to the total diffusion area of the side wall apertures with respect to end wall apertures, in order to provide a desired contact rate characteristic. Also, applicant's arguments relating to the diffusion pattern are based on unsupported attorney arguments, which are not evidence, where evidence is necessary. See MPEP 2145(I) and 716.01(c). Nor is it shown that any alleged advantageous diffusion features discussed in the specification are commensurate in scope with the claims.

23. Next applicant notes that a double patenting rejection was made and a T.D. submitted, applicant then requests that the examiner state whether "a similar double patenting rejection" would be raised with respect to the current claims. In response, a terminal disclaimer is accepted and recorded between the instant case and U.S. 7,160,451 and U.S. 7,238,285. It is not well understood what is meant by "a similar double patenting rejection." In an effort to clarify this issue, however, the examiner cites the following from MPEP 804.02(II):

A rejection based on a nonstatutory type of double patenting can be avoided by filing a terminal disclaimer in the application or proceeding in which the rejection is made. *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); *In re Knohl*, 386 F.2d 476, 155 USPQ 586 (CCPA 1967); and *In re Griswold*, 365 F.2d 834, 150 USPQ 804 (CCPA 1966). The use of a terminal disclaimer in overcoming a nonstatutory double patenting rejection is in the public interest because it encourages the disclosure of additional developments, the earlier filing of applications, and the earlier expiration of patents whereby the inventions covered become freely available to the public. *In re Jentoft*, 392 F.2d 633, 157 USPQ 363 (CCPA 1968); *In re Eckel*, 393 F.2d 848, 157 USPQ 415 (CCPA 1968); and *In re Braithwaite*, 379 F.2d 594, 154 USPQ 29 (CCPA 1967).

Art Unit: 1797

The use of a 37 CFR 1.131 affidavit in overcoming a double patenting rejection is inappropriate because the claim or claims in the application are being rejected over a patent which claims the rejected invention. *In re Dunn*, 349 F.2d 433, 146 USPQ 479 (CCPA 1965). 37 CFR 1.131 is inapplicable if the claims of the application and the patent are "directed to substantially the same invention." It is also inapplicable if there is a lack of "patentable distinctness" between the claimed subject matter. *Knell v. Muller*, 174 USPQ 460 (Comm'r. Pat. 1971), citing the court decisions in *In re Ward*, 236 F.2d 428, 111 USPQ 101 (CCPA 1956); *In re Teague*, 254 F.2d 145, 117 USPQ 284 (CCPA 1958); and *In re Hidy*, 303 F.2d 954, 133 USPQ 65 (CCPA 1962).

A patentee or applicant may disclaim or dedicate to the public the entire term, or any terminal part of the term of a patent. 35 U.S.C. 253. The statute does not provide for a terminal disclaimer of only a specified claim or claims. The terminal disclaimer must operate with respect to all claims in the patent.

The filing of a terminal disclaimer to obviate a rejection based on nonstatutory double patenting is not an admission of the propriety of the rejection. *Quad Environmental Technologies Corp. v. Union Sanitary District*, 946 F.2d 870, 20 USPQ2d 1392 (Fed. Cir. 1991). The court indicated that the "filing of a terminal disclaimer simply serves the statutory function of removing the rejection of double patenting, and raises neither a presumption nor estoppel on the merits of the rejection."

A terminal disclaimer filed to obviate a double patenting rejection is effective only with respect to the application identified in the disclaimer, unless by its terms it extends to continuing applications. If an appropriate "provisional" nonstatutory double patenting rejection \*\* is made in each of two or more pending applications, \*\* the examiner should follow the practice set forth in MPEP § 804, subsection I.B.1. in determining in which of the applications an appropriate terminal disclaimer must be filed.

Claims that differ from each other (aside from minor differences in language, punctuation, etc.), whether or not the difference would have been obvious, are not considered to be drawn to the same invention for double patenting purposes under 35 U.S.C. 101. In cases where the difference in claims would have been obvious, terminal disclaimers are effective to overcome double patenting rejections. Where the subject matter of the reference and the claimed invention were commonly owned at the time the invention was made, such terminal disclaimers must include a provision that the patent shall be unenforceable if it ceases to be commonly owned with the other application or patent. Note 37 CFR 1.321(c). 37 CFR 1.321(d) sets forth the requirements for a terminal disclaimer where the claimed invention resulted from activities undertaken within the scope of a joint research agreement as defined in 35 U.S.C. 103(c)(3). It should be emphasized that a terminal disclaimer cannot be used to overcome a rejection under 35 U.S.C. 102(e)/103(a).

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lucas Stelling whose telephone number is (571)270-3725. The examiner can normally be reached on Monday through Thursday 12:00PM to 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duane Smith can be reached on 571-272-1166. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Las 7-28-10

/Matthew O Savage/  
Primary Examiner, Art Unit 1797